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# PLATE GLASS

*in*

**RESIDENCE**

**DESIGN**



*Issued by the*  
**PLATE GLASS MANUFACTURERS**  
*of AMERICA*



## PLATE GLASS in RESIDENCE DESIGN



**A**N important fact for the architect to remember is that the cost of the glazing is a small item— seldom more than one per cent of the total cost of the house—and that the difference between the cost of sheet glass and Plate Glass is still smaller. Compared with the increased value Plate Glass windows give to a house, the difference in cost is insignificant.

Knowing this, the architect, when planning homes, can feel justified in specifying Plate Glass for the beauty and distinction it adds to residence design.



*The charm of Plate Glass lies in its reflections.  
Sometimes the window frames a delightful reflected  
picture of the surrounding landscape*

STRANGE as it may seem, the first glass used for glazing windows in medieval Europe was Plate Glass. True, it was a crude sort of Plate Glass, but, except for the modern improvements on the ancient methods, it was made just as Plate Glass is made today, by casting it in a huge slab and smoothing it.

Medieval  
Europe Used  
Medieval  
Turkey

Casting was the only method known to the early glass makers. The cast plates were very crudely smoothed and hardly transparent. For many centuries it was used only for glazing the windows of cathedrals. Window glass for domestic use was beyond the dreams of the most optimistic.

The blown-glass method of making window glass was discovered about the tenth or eleventh century, and by the end of the eleventh century had entirely supplanted the cast-glass method. The latter method was practically completely lost to knowledge for six hundred years, until the French re-discovered it in the seventeenth century. That re-discovery was

Casting  
Present Day  
Glass  
Continued

*Plate Glass  
a Common  
Blessing*

the real beginning of modern Plate Glass manufacture.

Today the manufacture of Plate Glass is one of the highly modernized industries, effectively equipped with improved labor-saving machinery for the making of the finest Plate Glass at a low cost. Thanks to the unceasing efforts of the manufacturers to improve and refine their methods, Plate Glass today is produced at such a low cost as to bring it into general use for window glazing.

*Gigantic  
Pots of  
Special Clay*

One of the greatest items of cost in Plate Glass manufacture is the clay pots used for melting. These pots require years for preparation and last only a few days in service. They are made of certain selected kinds of clay. Three years before the pots are to be used, the clays are taken from the mines and exposed to the air from one to two years so that they will disintegrate and eliminate impurities. The clays are then ground, screened, mixed accurately, and then kneaded.

After kneading, the clay must be stored again, to ripen, a process requiring another six months. Then begins the slow work of forming the pot, which must be done by hand. For its final seasoning, the finished pot must be stored for a year. Before it is used for melting, it is given a test baking in an oven approximating the temperature of glass-making

*Two Years  
of "Curing"*



*Patiently the pot maker forms rolls of clay and builds his pot, layer on layer, with infinite care*

3000° Heat  
for  
24 Hours

heat. If it passes, it is filled with the raw ingredients of glass. The process of melting and fusing requires a continuous heat of 2500 to 3000 degrees for about 24 hours.

At the proper moment, a huge electric crane, equipped with a pair of giant tongs, grasps the melting pot and pours its glowing contents over the surface of a great steel slab thirty-two feet long by twenty feet wide. A heavy steel roller advances and rolls the molten mass flat.

A Product  
of Infinite  
Care

Right here is where the process of making ordinary sheet glass differs from the making of Plate Glass. Instead of casting the molten glass, it is blown into cylinders or by later methods drawn into sheets of the required thickness. The cylinders are split open and flattened. The rough casting of Plate Glass must go through many processes of annealing, grinding, smoothing, polishing, close inspection for flaws, and grading. The result of these painstaking processes is a perfectly clear plate of glass of uniform thickness, with



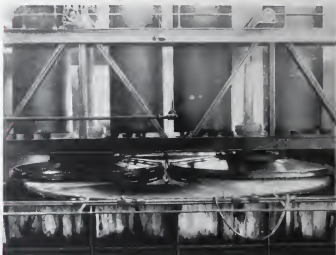


*The pot, poised a moment above the casting table, is tilted so that the molten contents pour in a thick, dazzling flood across the table's width, and immediately the 25-ton steel roller moves forward, spreading out the molten mass before it as a cook rolls out dough*

*Sheets of  
Transparent  
Brilliance*

absolutely flat, brilliantly polished surfaces. In spite of every care, cylinder-blown and drawn sheet glass will be wavy to a greater or less degree, depending on the skill of manufacture.

While the chief advantage of Plate Glass is the absolute clearness and absence of distortion when objects are viewed through it, its chief architectural value in residence design



*Mammoth disks revolve upon the surface of the glass, and with the aid of sand grind the plate to perfect smoothness*



*The beautifully polished surfaces of Plate Glass catch the high-lights and shadows of nature's pictures and reflect them with a fidelity and brilliance impossible to any other glass*



*A well-designed house, the pride of its owner and designer, deserves nothing less than Plate Glass in its windows*

An  
Architectural  
Asset

is its great beauty. Plate Glass makes all the difference in the world in the appearance of a house. While the passerby may not realize the cause, he immediately recognizes an indefinable appearance of quality in a house glazed with Plate Glass.

Recently a contractor in Pittsburgh built a row of houses. They were all alike, except that one of the houses was glazed with Plate



*A Plate Glass mirror-door is a beautiful thing in itself and solves many a problem of composition in a room's arrangement*

Glass. Prospective buyers came to look at the houses. Practically every one of them, without knowing why, preferred the house glazed with Plate Glass.

*Truthful  
Reflections*

If we were to analyze the beauty of Plate Glass, we would find its charm in its capacity for reflection. Its highly polished surface reflects sky and landscape with mirror-like fidel-



*The dignity and simplicity of Colonial design is effectively carried out by the Plate Glass in the windows*



*No other material makes such a tremendous difference in the appearance of the house as Plate Glass*

ity, without the ugly and annoying distortion of sheet glass.

The ensemble effect of Plate Glass windows in a residence is to give that home an indefinable air of character and tone. Besides the satisfaction it gives the owners, Plate Glass enhances the value of a house either for resale or for renting. A house glazed with Plate Glass is far more easily rented or sold.

*Plate Glass  
Brings  
Distinction*



*Plate Glass makes all the difference in the world in the appearance of the house, from both the outside and the inside*

*Turns  
Beauty Into  
Economy*

The increased value of a house glazed with Plate Glass far more than covers the difference in cost between sheet glass and Plate Glass. The entire cost of glazing in almost any house is hardly more than one per cent of the total cost of the house. The difference between the cost of sheet glass and the cost of Plate Glass would be even less.







*Use*  
**PLATE**  
*Glass*

Nothing Else  
is Like it